Complete Summary

GUIDELINE TITLE

Medication in older adults.

BIBLIOGRAPHIC SOURCE(S)

Fulmer T, Foreman MD, Zwicker CD. Medication in older adults. In: Mezey M, Fulmer T, Abraham I, Zwicker DA, editor(s). Geriatric nursing protocols for best practice. 2nd ed. New York (NY): Springer Publishing Company, Inc.; 2003. p. 207-28. [41 references]

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SCOPE

DISEASE/CONDITION(S)

- Adverse drug events
- Iatrogenesis related to medication problems
- Other medication-related problems

GUIDELINE CATEGORY

Evaluation
Management
Prevention
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine

Nursing
Physical Medicine and Rehabilitation

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses

GUIDELINE OBJECTIVE(S)

- To prevent/decrease adverse drug events in older adults
- To conduct a comprehensive medication assessment
- To specify classes of medications having a high potential for toxicity in the elderly
- To identify factors that place older adults at risk for medication problems
- To present strategies to counteract some common drug-induced problems in older adults
- To promote use of an individualized plan for medication safety in an older adult

TARGET POPULATION

Hospitalized older adults

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation

Comprehensive medication assessment, including:

1. Medical diagnoses, diseases, or health problems
2. History of previous adverse drug reaction(s)
3. Numbers and types of medications, including over-the-counter and herbal remedies
4. Length of time taking each medication
5. Last time the prescription was re-evaluated by a competent health provider
6. Proper medication administration (appropriate drug, dose, timing, and indication)
7. Deviations from prescription
8. Storage of medications
9. Intended effect(s) of medication
10. Potential drug interactions
11. Functional, sensory, cognitive, affective, and nutritional status
12. Technical problems with medication use (ability to open bottles and read labels)
13. Ability to obtain medications (how filled, cost factors, support)
14. Allergies to medications and type of reaction, adverse effects of medication
15. Understanding of drug regimen

Prevention/Management

1. A nursing plan that focuses on appropriate medication regimes for older adults
2. Education for patient and family/caregivers regarding appropriate medication management
   - Drug sheets and other written educational materials
3. Documentation of teaching strategies and follow-up with patients to determine that education was effective
4. Referral/consultation with specialist (e.g., geriatrician, geriatric/gerontological or psychiatric clinical nurse specialist, nurse practitioner, or consultation-liaison service) as appropriate

MAJOR OUTCOMES CONSIDERED

- Percentage of admissions to emergency rooms and acute care hospitals for medication-related problems
- Drug-related morbidity and mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Medline was the electronic database used.

NUMBER OF SOURCE DOCUMENTS

200

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

<div style="background-color:teal; color:white; text-align:center">RECOMMENDATIONS</div>

MAJOR RECOMMENDATIONS

Nursing Assessment

- Review of all prescription, over-the-counter, and non-traditional medications.
- Assess the older person for cognitive capacity and social support.
- Determine if there are any pharmacodynamic or pharmacokinetic alterations in the older person, which may be abnormal.
- Do a careful evaluation of medication compliance to determine whether the older person is able to take medications correctly.
- Do an assessment as to the older person´s value systems and understandings of the meaning of the medications and how they might help or hurt them.
- Assessment parameters:
    - Medical diagnoses, diseases, or health problems
    - History of previous adverse drug reaction(s)
    - Numbers and types of medications
    - Length of time taking medication
    - Last time the prescription was re-evaluated by a competent health provider
    - Instructions for administration of medication
    - Deviations from prescription
    - Storage of medications
    - Intended effect(s) of medication

- Adverse effects of medications
- Functional, sensory, cognitive, affective, and nutritional status
- Technical problems with medication use (i.e., ability to open bottles and read labels)
- Allergies to medications and type of reaction

Nursing Care Strategies

- Prevention
  - Develop a nursing plan that focuses on appropriate medication regimes for older adults.
  - Consider alternatives to medications, as well as fewer medications and lower doses.
  - Refer the older adult to teaching materials available such as http://www.merck.com.
  - Document teaching strategies and follow-up with patients to determine that education was effective.
- Treatment
  - Regular review of medications for prevention of iatrogenesis
  - Referral and partnership with pharmacy and pharmacologists to improve strategies to prevent iatrogenesis
- Education of patients and/or significant other about:
  - Medication regimen
  - Medications that interact with other medications, foods, and alcohol
  - Habit-forming and addictive medications
  - Methods for keeping track of medications
  - Signals of medication problems

Evaluation of Expected Outcomes

See the "Potential Benefits" field.

Follow-Up To Monitor Protocol Effectiveness

- Assess staff competence in the assessment of medication use
- Ensure consistent and appropriate documentation of medication assessment
- Provide consistent and appropriate care and follow-up in presence of a medication-related problem
- Evaluate nature and origins of medication-related problems sought in a timely manner
- Provide multiple episodes of teaching to reinforce understanding and follow-through with appropriate medication administration
- Ensure the incidence of medication-related problems decrease

CLINICAL ALGORITHM(S)

None provided

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Overall Benefits

- Decreased incidence of adverse drug events in elderly
- Improved outcomes for patients
- Improved quality of life for elderly

Specific Benefits

Patients will:

- Experience fewer iatrogenic outcomes from medications
- Understand their medication regimens

Healthcare providers will:

- Use of a range of interventions to prevent, alleviate, or ameliorate medication problems with older adults
- Document on-going comprehensive medication assessment
- Increased their knowledge about medication safety in the elderly
- Increase referrals to appropriate practitioners (e.g., geriatrician, geriatric/gerontological or psychiatric clinical nurse specialist, nurse practitioner, or consultation-liaison service)

Institutions will:

- Provide educational material related to the Beers criteria
- See decreased morbidity and mortality due to medication-related problems
- See improved documentation of medication usage
- Consider unit dose packaging to avoid incorrect medications
- Review for careful documentation of iatrogenic medication and other iatrogenic events for continuous quality improvement
- Staff will receive ongoing education related to safe medication management

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

As individuals age, they may have a series of difficulties that decrease their ability to comply with medication regimens (e.g., vision impairment, arthritis,

economics). The body of literature related to medication compliance in older adults is beyond the scope of this guideline, but it is extremely important to note.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2003

GUIDELINE DEVELOPER(S)

The John A. Hartford Foundation Institute for Geriatric Nursing - Academic Institution

GUIDELINE DEVELOPER COMMENT

The guidelines were developed by a group of nursing experts from across the country as part of the Nurses Improving Care for Health System Elders (NICHE)

project, under sponsorship of The John A. Hartford Foundation Institute for Geriatric Nursing.

SOURCE(S) OF FUNDING

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Ensuring medication safety for older adults. In Mezey et al (Eds). Geriatric nursing protocols for best practice. Springer Publishing Company: New York.

GUIDELINE AVAILABILITY

Copies of the book Geriatric Nursing Protocols for Best Practice, 2nd edition: Available from Springer Publishing Company, 536 Broadway, New York, NY 10012; Phone: (212) 431-4370; Fax: (212) 941-7842; Web: www.springerpub.com.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on July 30, 2003.The information was verified by the guideline developer on August 25, 2003.

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